

Appl. No. 10/789,310
Reply to Office Action of July 27, 2006

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REMARKS/ARGUMENTS

A new title based on claim 32, is provided, as required. Changes were made to the specification in response to the rejection.

A new independent claim 35 combines original claims 8 and claim 9.

New claim 33 is based on original claim 10.

New claim 34 is based on original claim 13, corrected to conform to the disclosure at Figs. 16A and 16B (see discussion at page 36 of the Figs.).

New independent claim 35 combines original claim 8 and claim 11.

New claim 36 is based on original claim 12.

New claim 37 is based on original claim 13, corrected to conform to the disclosure at Figs. 16A and 16B (discussion at page 36).

All new claims are in the elected subject matter.

To help clarify the meaning of the claimed invention, the term "depicting mode" (which may be ambiguous and may include focus positioning of the electron beam) is changed to make clear the term to be adjusted to compensate for errors. So a change

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from "adjusting depicting mode" to "adjusting spacing" or "adjusting dose" was made in the claims.

The claims are rejected as anticipated or obvious over Furuta or over Watanabe. These rejections are based on a misunderstanding of the invention which amendments made should avoid.

Concerning the art, although "measuring the contour of a substrate" is disclosed both by Furuta et al. (US 2002/0170887 A1) and Watanabe et al. (US 6,107,637), this is not the same as the requirements of the present claims, nor does it accomplish present invention objects.

The "measuring of a thickness of a resist film on the substrate" is not described above references. "Detecting thickness error of a resist film" is also not described in them.

In the present invention "adjusting each spacing between diffraction gratings" or "adjusting a dose of said electron beam". make it possible to compensate for the phase change of diffracted light caused by errors in a resist film's thickness, corresponding to each of diffraction gratings. Thus, a high precision diffraction structure cannot be made.

Adjusting the focus of the electron beam (disclosed in Furuta and Watanabe) can only provide depicting accuracy. However, it cannot measure variation in resist film thickness or

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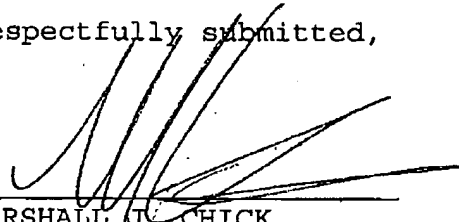
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compensate for the phase change of diffracted light caused by the variation or errors in the resist film's thickness.

In view of the above, it is submitted that the present invention is not shown or suggested by the cited art. Nor can the prior art enable the present invention. Withdrawal of the rejections and allowance of the application are respectfully requested.

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